

## **LEA EISENBACH, PhD**

### **CURRICULUM VITAE**

#### **EDUCATION**

- 1962-66      Technical High School of Engineering, Tel Aviv University, Tel Aviv, Israel. Subject of thesis: Immunospecific antibodies to nucleosides.
- 1966              Awarded degree in Practical Chemical Engineering.
- 1966-69      Undergraduate studies in the Department of Chemistry, Tel Aviv University.
- 1969              Awarded B.Sc. degree, Tel Aviv University.
- 1969-71      Graduate studies towards M.Sc. degree, Department of Biochemistry, Tel Aviv University. Subject of thesis: "The Modification of Porcine Carboxypeptidase B by P-azo-benzenearsonate." Supervisor: Prof. M. Sokolovsky.
- 1972              Awarded M.Sc. degree, Tel Aviv University.
- 1973-78      Graduate studies towards Ph.D. degree at the Department of Cell Biology, The Weizmann Institute of Science, Rehovot, Israel. Subject of thesis: "On the Mechanism of Glucose-6-Phosphate Dehydrogenase Regulation in Mouse Liver." Supervisor: Prof. G. Yagil.
- 1979              Awarded Ph.D. degree, Feinberg Graduate School of the Weizmann Institute of Science.
- 1978-79      Postdoctoral training, The Institute for Enzyme Research, Madison, Wisconsin, USA. Research associate with Prof. M. Nomura. Research interests: Effects and mechanisms of ppGpp on transcription of E. coli ribosomal RNA operons in an in vitro system.
- 1979-80      Postdoctoral training, Department of Biochemistry, University of Wisconsin, Madison, Wisconsin, USA. Position: Research Associate with Profs. D.L. Nelson and C. Kung. Research interests: The biochemistry of behavior of Paramecium tetraurelia. Mapping of proteins in the ciliary membrane which are functional in regulation of swimming.

## **POSITIONS**

- 1980-83      Research Associate with Professor Michael Feldman, Department of Cell Biology, The Weizmann Institute of Science, Rehovot, Israel. Research interest: Tumor metastases.
- 1983-86      Staff Assistant Scientist with Professor Michael Feldman, Department of Cell Biology, The Weizmann Institute of Science, Rehovot, Israel.
- 1986-1989    Staff Associate Scientist, with Professor Michael Feldman, Department of Cell Biology, The Weizmann Institute of Science, Rehovot, Israel.
- 1989-1994    Staff Senior Scientist, Department of Cell Biology, The Weizmann Institute of Science, Rehovot, Israel.
- 1994-1995    Associate Professor, Dept. of Cell Biology, The Weizmann Institute of Science, Rehovot, Israel.
- 1995          Associate Professor, Dept. of Immunology, The Weizmann Institute of Science, Rehovot, Israel (rearrangement of staff in departments).

## **MISCELLANEOUS**

- 1966-67      Army service.
- 1970-72      Non-degree studies in the Department of Education, Tel Aviv University.
- 1972          Teaching certificate in Chemistry.
- 1969-70      Teaching, chemistry, physics, high school level.
- 1969-72      Teaching, mathematics at "Seminar Hakibbutzim", Tel Aviv (College level).
- 1969-71      Teaching assistant, Department of Biochemistry, Tel Aviv University.
- 1971-73      Research assistant in a joint program for the Department of Chemical Immunology of the Weizmann Institute and the Immunology Laboratory at the Beilinson Hospital, Petah-Tikva, Israel.
- 1983          Mini-sabbatical, Dr. Robert Gallo, NCI, Bethesda, Maryland. Subject: Oncogene Expression in Metastases.
- 1988          Mini-sabbatical, Dr. Eli Gilboa, Memorial Sloan Kettering, New York, Subject: Gene transfer by retroviral vectors.

1995-1998 Secretary general of the Israeli Immunological Society.  
1997 Review Board Free University, Brussels, Belgium.  
1998 Review committee ACSBI, YY, TCRF-UICC.  
1998-2001 President of the Israel Immunological Society.

## **PROFESSIONAL SOCIETY MEMBERSHIPS**

Israel Immunological Society.  
Secretary general (1995-1998, President 1998 -2001).

International Metastasis Research Society.

American Association for Cancer Research.

European society for gene therapy.  
Chairperson of the committee of gene therapy and immunotherapy of cancer  
(2000-2003).

UICC.  
(Reviewer Board 98-03).

## **EDITORIAL BOARDS**

Gene Therapy.  
Karol Sikora, Bob Williamson, Joseph Glorioso (Eds). Macmillan Magazines  
Ltd.

Clinical and experimental metastasis.  
Suzanne A Eccles, Garth L Nicolson, Tatsuro Irimura (Eds), Kluwer Pub.

## **REVIEWER (Journals)**

PNAS  
Journal of Immunology  
Oncogene  
International Journal of Cancer  
Clinical and Experimental Metastasis  
British Journal of Cancer  
International Immunology  
Gene Therapy  
Cancer gene therapy  
Human gene therapy  
European J Immunology  
European J Cancer

Immunology letters  
FEBS journal  
Cancer letters  
Molecular Medicine

### **INVITED PRESENTATIONS (2003-2008)**

Keystone Symposia, Tumor Immunology (C5) February, 17-23, 2003, Keystone, USA.

The 34th symposium of princess Takamatsu cancer research fund, November 11-15, 2003, Tokyo, Japan.

Vaccines, present and future. November 27-29, 2003, Dead Sea resort, Israel

CapCure Israel Scientific Retreat, January 13-16, 2004, Ein Gedi, Israel.

The 33rd annual meeting of the Israel Immunological Society, February 25-26, 2004, Bar-Ilan University, Israel.

The Seventh International Conference of Anticancer Research, October 25-30, 2004, Corfu, Greece.

Israel Vaccine Research Initiative (IVRI), June 21, 2005, Jerusalem, Israel.

Immune Mediated diseases: from Theory to therapy. October 3-8, 2005, Moscow, Russia.

Cancer, Metastasis, AIDS and Immunotherapy, ISF workshop in memory of Professor Michael Feldman. March 13-14, 2006. Rehovot Israel. (Meeting chairperson).

Tumor Immunology, May 17-21, 2006. Halle, Germany.

The scientific legacy of Shraga Segal, a symposium to his memory, February 21, 2007, Beer-Sheba, Israel.

The 14<sup>th</sup> international conference of cryosurgery, the 1<sup>st</sup> international conference on cryoimmunology, November 3-6, 2007. Beijing, China.

Cancer-a cellular and molecular view, M.D. Moross Cancer Institute of the WIS and the McGill Cancer Centre, McGill University, Montreal, October 26-27, 2008. Rehovot, Israel.

### **GRANTS AND AWARDS (2002-2008)**

ICA (1/2001-12/2002)

MHC class I and class II restricted antigens in immunotherapy of cancer.

Ornest Family Foundation (3/2001-2/2002)  
Carcinoma TAAs-biology and immunotherapy.

Sterenber Fund (8/2001-7/2002)  
1-8D gene and colon carcinoma.

ISF(10/2001-9/2005)  
The role of interferon inducible gene 1-8D in tumorigenicity and immunogenicity of colon cancer.

Minerva (1/2002-12/2004)  
The role of interferon-inducible 1-8D gene in tumorigenicity and immunogenicity of colon cancer.

Levin Fund (2/2002-12/2002)  
Glycopeptides as targets for immunotherapy of breast and ovarian carcinomas.

Lombroso Grant for Clinical Cancer Research (4/2002-3/2003)  
Novel colon carcinoma TAAs-biology and immunotherapy.

Moross Institute for Cancer Research (4/2002-3/2003)  
Novel colon carcinoma TAAs-biology and immunotherapy

Ministry of industry and commerce (Nofar) (8/2002-7/2003)  
Anti colon carcinomas vaccines based on novel human tumor associated antigen 1-8D peptides.

Ornest Family Foundation (9/2002-8/2003)  
Novel anti prostate cancer vaccines based on tumor associated antigen peptides.

ICRF (9/2002-8/2004)  
The role of 1-8 family of interferon inducible gene in carcinogenesis and immunotherapy.

ICA (1/2003-12/2004)  
Peptides and glycopeptides as targets for anti cancer immunotherapeutic approaches in breast and ovarian carcinomas.

Weizmann Institute-Excellence Center (10/2003-9/2004)  
Characterization of new human carcinoma antigens (TAAs) and of respective T cell memory and effector cell responses.

Horowitz (1/2004-2/2005)  
Novel anti prostate cancer vaccines based on tumor associated antigen peptides.

Lewis Family Charitable Trust (3/2004-2/2008)  
Anti colon-carcinoma vaccines based on tumor associated antigens (TAA) peptides.

Horowitz (1/2005-12/2005)  
The role of normal and mutant 1-8D interferon inducible gene in carcinogenesis and immunotherapy.

ICRF (9/2005-8/2007)  
The role of the 1-8 interferon inducible genes in tumor progression.

ISF (10/2005-9/2009)  
Small interferon stimulated genes: Role in cancer and immunity.

Ministry of health (3/2007-2/2009)  
The effect of SNPs in tumor-associated antigens on the immunogenicity of peptide based vaccines.

Moross Institute for Cancer Research (7/2007-6/2008)  
T-cell receptor evolution for tumor immunotherapy.

Yeda research and development (7/2007-6/2008)  
Preparation of glioma immunotherapy clinical trial-glioma separation and characterization, and immune monitoring of patients.

Lewis Family Charitable Trust (3/2008-2/2009)  
Anti colon-carcinoma vaccines based on tumor associated antigens (TAA) peptides.

## **STUDENTS**

### **Ph.D. degree**

Gelber Cohava (graduated 1989)  
Kushtai Gil (graduated 1989)  
Do Myoung-Sool (graduated 1993)  
Fitzer-Attas Cheryl (graduated 1993)  
Porgador Angel (graduated 1993)  
Katz Anne (graduated 1994)  
Plaksin Daniel (graduated 1994)  
Mandelboim Ofer (graduated 1996)  
Simons Arnon (in collaboration with Prof. V. Rotter, graduated 1998)  
Feigelson Sara (in collaboration with Prof. Z. Eshhar, graduated 1999)  
El-Shami Khaled (graduated 2000)  
Carmon Lior (graduated 2001)  
Tirosh Boaz (graduated 2002)  
Bar-Haim Erez (graduated 2003)  
Lee Sung-Hyung (graduated 2005)  
Machlankin Arthur (graduated 2005)  
Farago Marganit (left 2003)  
Volovitz Ilan (in collaboration with Prof. I. Cohen, graduated 2007)  
Goldberger Ofir (graduated 2008)  
Daniel Vered (graduated 2008)  
Avraham Efrat  
Cohen Noam (in collaboration with Dr Steffen Jung)  
Boxbaum Yonathan  
Cafri Gal

### **Post-docs**

Stepensky David (2003-2005)  
Avrahami Dorit (2004-present)  
Daniel-Carmi Vered (2008-present)

### **M.Sc. degree**

Plaksin Daniel (graduated 1987)  
Gubbay John (graduated 1988)  
Porgador Angel (graduated 1989)  
Mandelboim Ofer (graduated 1991)  
Yamit-Hezi Ayala (graduated 1991)  
Erel Naomit (graduated 1993)  
Feigelson Sara (graduated 1993)  
Kopcow Hernan (graduated 1996)  
Morag Tamar (in collaboration with Prof. M. Fridkin, graduated 1996)  
Bar-Haim Erez (graduated 1997)  
Popovich Dan (graduated 1998)

Shachar Hadas (graduated 1998)  
Stabinsky Michal (graduated 1998)  
Volovitz Ilan (graduated 2000)  
Priel Irene (graduated 2001)  
Goldberger ofir (graduated 2002)  
Avraham Efrat (graduated 2003)  
Daniel Vered (graduated 2003)  
Finkel Eran (graduated 2003)  
Windrech Ruty (graduated 2004)  
Guttman Chen (graduated 2005)  
Sheiket Helena (graduated 2005)  
Tavori Hagai (graduated 2007)  
Karp Noga (graduated 2008)  
Reuven Eliran  
Azulay Meir  
Bordigary Giovanna  
Vidiborsky Zoya



## **LEA EISENBACH, PhD**

### **PUBLICATIONS 72-08**

1. Sokolovsky, M., Eisenbach, L. (1972). Porcine carboxypeptidase B Arsanilzocboxypeptidase, spectral and functional consequences of modification of tyrosine-248. *Eur J Biochem* 25:483-490.
2. Eisenbach, L., Yagil, G. (1975). Purification of glucose-6-phosphate dehydrogenase from induced and repressed mouse liver. *Isr J Med Sci* 11:1175.
3. Eisenbach, L., Shimron, F., Yagil, G. (1976). The effect of age on the regulation of glucose-6-phosphate dehydrogenase in mouse liver. *Exp Gerontol.* 11:63-71
4. Eisenbach, L., Eisenbach, M. (1979). Electrophoretic mobility of membrane fragments on a sucrose gradient. Application to isolated purple membrane fragments from *Halobacterium halobium*. *Anal Biochem* 92:228-232.
5. Eisenbach, L., De Baetselier, P., Katzav, S., Segal, S., Feldman, M. (1983). Immunogenic control of metastatic competence of cloned tumor cell populations. *Symp Fundam. Cancer Res.* 36:101-121.
6. Eisenbach, L., Ramanathan, R., Nelson, DL. (1983). Biochemical studies of the excitable membrane of *Paramecium tetraurelia*. IX. Antibodies against ciliary membrane proteins. *J Cell Biol* 97:1412-1420.
7. Eisenbach, L., Segal, S., Feldman, M. (1983). MHC imbalance and metastatic spread in Lewis Lung carcinoma clones. *Int J Cancer* 32:113-120.
8. Eisenbach, L., Hollander, N., Greenfeld, L., Yakor, H., Segal, S., Feldman, M. (1984). The differential expression of H-2K versus H-2D antigens, distinguishing low metastatic from high metastatic clones, is correlated with the immunogenic properties of the tumor cells. *Int J Cancer* 34:567-5731.
9. Eisenbach, L., De Baetselier, P., Katzav, S., Segal, S., Feldman, M. (1984). Immunogenetic control of metastatic competence of cloned tumor cell populations. In: "Cancer Invasion and metastasis: Biologic and Therapeutic Aspects," eds Nicolson GL, Milas L, Raven Press, New York, pp 101-121.
10. Eisenbach, L., Segal, S., Feldman, M. (1985). Proteolytic enzymes in tumor metastasis. I. Plasminogen activator in clones of Lewis lung carcinoma and T10 sarcoma. *J. Natl. Cancer Inst.* 74:77-86.

11. Eisenbach, L., Segal, S., Feldman, M. (1985). Proteolytic enzymes in tumor metastasis. II. Collagenase type IV activity in subcellular fractions of cloned tumor populations. *J. Natl. Cancer Inst.* 74:87-93.
12. Eisenbach, L., Hollander, N., Segal, S., Feldman, M. (1985). The differential expression of class I MHC antigens controls the metastatic properties of tumor cells. *Transpl. Proc.* 17:729-734.
13. Eisenbach, L., Feldman, M. (1985). Genes and antigens controlling tumor metastasis. In: *Haematology and Blood Transfusion, Modern Trends in Leukemia, VI* (Neth R, Gallo R, Greaves M, Jenkins A, eds). Vol 29, Springer Verlag, Berlin, pp. 449-507.
14. Eisenbach, L., Feldman, M. (1986). Enzymes, receptors, oncogenes in high- and low-metastatic tumor clones. In: *New Experimental Modalities in the Control of Neoplasia* (Chandra P, ed.) Plenum Press, New York, pp 57-70.
15. Eisenbach, L., Katzav, S., Feldman, M. (1986). Immunomodulation of tumor metastasis. *Ibidem*, pp 81-90.
16. Dvorat, A., Scharf, J., Eisenbach, L., Gershon, D. (1986). G6PD molecules devoid of catalytic activity are present in the nucleus of the rat lens. *Exp. Eye Res.* 42:489-496.
17. Eisenbach, L., Kushtai, G., Plaksin, D., Feldman, M. (1986). MHC genes and oncogenes control the metastatic phenotype of tumor cells. *Cancer Rev.* 5:1-8.
18. Barzilay, J., Kushtai, G., Plaksin, D., Feldman, M., Eisenbach, L. (1987). Expression of major histocompatibility class I genes in differentiating leukemic cells is temporally related to activation of c-fos protooncogene. *Leukemia* 1:198-204.
19. Feldman, M., Eisenbach, L. (1987). Molecular controls of tumor metastasis. In: *Accomplishments in Cancer Research 1986* (Fortner JG, Rhoads JE, eds.) JR Lippincott Co., Philadelphia, pp 194-200.
20. Kushtai, G., Barzilay, J., Feldman, M., Eisenbach, L. (1988). The c-fos proto-oncogene in murine 3LL carcinoma clones controls the expression of MHC genes. *Oncogene* 2:119-128.
21. Plaksin, D., Gelber, C., Feldman, M., Eisenbach, L. (1988). Reversal of the metastatic phenotype in Lewis lung carcinoma cells following transfection with syngeneic H-2K<sup>b</sup> gene. *Proc. Natl. Acad. Sci. USA* 85:4463-4467.
22. Feldman, M., Eisenbach, L. (1988). Genes controlling the metastatic phenotype. *Cancer Sur.* 7:555-572.

23. Eisenbach, L., Gubbay, J., Gelber, K., Kushtai, G., Feldman, M. (1988). Do oncogenes play a role in tumor metastasis? In: Cancer Metastasis: Biological and Biochemical Mechanisms and Clinical Aspects (Hellman K, Liotta LA, Prodi G, eds.) Plenum Publ. Corp. New York, pp 281-291.
24. Feldman, M., Plaksin, D., Gelber, C., Kushtai, G., Eisenbach, L. (1988). Control of MHC genes that regulate the metastatic phenotype of tumor cells. In: Cancer Metastasis: Biological and Biochemical Mechanisms and Clinical Aspects (Hellman K, Liotta LA, Prodi G, eds). Plenum Publ. Corp., New York, pp 281-291.
25. Feldman, M., Gelber, C., Plaksin, D., Kushtai, G., Eisenbach, L. (1988). The reversal of the metastatic phenotype by gene transfer. Proc. CIBA Found. Symp. on Metastasis, London pp 170-189.
26. Feldman, M., Eisenbach, L. (1988). The metastatic phenotype of cancer cells. Sci. Am. Vol. 256 No. 11:60-85.
27. Feldman, M., Plaksin, D., Gelber, C., Kushtai, G., Eisenbach, L. (1988). Control of MHC genes that regulate the metastatic phenotype of tumor cells. Adv Exp Med Biol 233:109-117.
28. Gelber, C., Plaksin, D., Vadai, E., Feldman, M., Eisenbach, L. (1989). The abolishment of metastasis formation by tumor cells transfected with "foreign" H-2K genes. Cancer Res. 49:2366-2372.
29. Tzehoval, E., Dagan, S., Eisenbach, L., Atsmon, J., Feldman, M. (1989). Immunogenic properties of macrophage hybridomas. Eur J Immunol 19:89-96.
30. Martinez, RD., Eisenbach, L., Feldman, M. (1989). Cytotoxic and proliferative effect of tobacco products on Lewis lung adenocarcinoma cells and spleen lymphocytes. Allergol Immunopathol 17:257-261.
31. Porgador, A., Feldman, M., Eisenbach, L. (1990). H-2K<sup>b</sup> transfection of B16 melanoma cells result in reduced tumorigenicity and metastatic competence. J. Immunogenet 16:291-303.
32. Kushtai, G., Feldman, M., Eisenbach, L. (1990). c-fos transfection of 3LL tumor cells turns on MHC gene expression and consequently reduces their metastatic competence. Int. J. Cancer 45:1131-1136.
33. Feldman, M., Eisenbach, L. (1990). Metastases unveiled (in Hebrew). Mada Vol. 34, No. 4, pp. 174-179.
34. Porgador, A., Brenner, B., Vadai, E., Feldman, M., Eisenbach, L. (1991). Immunization by g-IFN treated B16-F10.9 melanoma cells protects against metastatic spread of the parental tumor. Int J Cancer Sup 6: 54-60.

35. Gelber, C., Eisenbach, L., Feldman, M., Goodenow, R. (1991). T cell subset analysis of 3LL tumor rejection. *Int J Cancer Sup* 6: 69-72.
36. Brosh, N., Lotan, M., Eisenbach, L., Brocke, S., Tartakovsky, B. (1991). Fertility impairment and improved fetal survival induced by a tumor cell line in mice. *Am. J. Reprod. Immunol.* 26: 47-51.
37. Cordon-Cardo, C., Fuks, Z., Eisenbach, L., Feldman, M. (1991). Expression of HLA-A, B,C antigens on primary and metastatic tumor cell populations of human carcinomas. *Cancer Res* , 51:6372-6380.
38. Eisenbach, L., Feldman, M. (1991). Tumor cell surface determinants in host immunity against metastases. *Semin Cancer Biol.* 3:179-188.
39. Feldman, M., Eisenbach, L. (1991). MHC class I genes controlling the metastatic phenotype of tumor cells. *Semin Cancer Biol.* 5:337-346.
40. Amsterdam, A., Eisenbach, L., Suh, BS., Plehn-Oujovich, D., Keren-Tal, I., Dantes, A. (1991). Possible role for Ha-ras expression in inducible steroidogenesis in immortalized Granulosa cell lines. In: *Proc. NATO Adv Res Workshop on the Superfamily of Ras-Related Genes*. Spandidos SA, ed. Plenum Press, pp. 227-236.
41. Eisenbach, L. (1991). MHC+X, complex formation and antibody induction. Book review. *Molec. Immunol.* 28, 561-562.
42. Feldman, M., Eisenbach, L. (1991). MHC class I genes controlling the metastatic phenotype of tumor cells. In: Klein E, ed: "The Role of MHC Class I and II Antigen Expression for Immune Surveillance against Tumors", W.B. Saunders, Pub., Vol 2, pp. 337-346.
43. Fridkis-Hareli, M., Abel, L., Eisenbach, L., Globerson, A. (1992). Differentiation patterns of CD4/CD8 thymocyte subsets in cocultures of fetal thymus and lymphohemopoietic cells from c-fos transgenic and normal mice. *Cell. Immunol.* 141: 279-292.
44. Katz, A., Feldman, M., Eisenbach, L. (1992). The use of <sup>35</sup>S-methionine as a target cell label in long-term cytotoxic assays. *J Immunol Meth* 149: 255-260.
45. Orr-Urtreger, A., Bedford, MT., Do, MS., Eisenbach, L., Lonai, P. (1992). Developmental expression of the  $\alpha$  receptor platelet-derived growth factor which is deleted in the embryonic lethal Patch mutation. *Development* 115: 289-303.
46. Mandelboim, O., Feldman, M., Eisenbach, L. (1992). H-2K double transfected tumor cells as anti-metastatic vaccines in heterozygous mice: implications to the T cell repertoire. *J. Immunol.* 148: 3666-3673.

47. Do, MS., Fitzer-Attas, C., Gubbay, J., Greenfeld, L., Feldman, M., Eisenbach, L. (1992). Mouse PDGF $\alpha$  receptor: sequence, tissue-specific expression and correlation with metastatic phenotype. *Oncogene* 7:1567-1575.
48. Porgador, A., Tzehoval, E., Katz, A., Vadai, E., Revel, M., Feldman, M., Eisenbach, L. (1992). IL-6 gene transfection into 3LL tumor cells suppresses the metastatic phenotype and confers immunotherapeutic competence against parental metastatic cells. *Cancer Res.* 52:3679-3686.
49. Suh, BS., Eisenbach, L., Amsterdam, A. (1992). Adenosine 3',5'-monophosphate suppresses metastatic spread in nude mice of steroidogenic rat granulosa cells transformed by Simian virus-40 and Ha-ras oncogene. *Endocrinology* 131:526-532.
50. Plaksin, D., Gelber, C., Eisenbach, L. (1992). H-2D<sup>b</sup> gene transfer into high-metastatic D122 cells results in tumor rejection in allogeneic recipients, but does not affect metastasis in syngeneic recipients: implications to mechanisms of allorecognition. *Int. J. Cancer.* 52:771-777.
51. Gelber, C., Eisenbach, L., Feldman, M., Goodenow, R. (1992). T cell subset analysis of Lewis lung carcinoma tumor rejection: Heterogeneity of effectors and evidence for negative regulatory lymphocytes correlating with metastasis. *Cancer Res.* 52:6567-6575.
52. Porgador, A., Revel, M., Feldman, M., Eisenbach, L. (1992). Tumor cells transfected with IL-6 gene reversed their metastatic phenotype, and were used as anti-metastatic cellular vaccines. In: Revel M (ED): IL-6, Physiopathology and Clinical Potential. New York: Serono Symposia Publications, Raven Press, pp. 265-272.
53. Revel, M., Chen, L., Novick, D., Shulman, L., Harrochs, S., Chebath, J., Haran-Ghera, N., Eisenbach, L., Katz, A., Feldman, M., Givon, T., Slavin, S. (1992). Antitumor potential of human rIL-6: studies in cell cultures and in murine tumor models in vivo. *Ibidem* pp. 241-254.
54. Eisenbach, L., Plaksin, D., Porgador, A., Mandelboim, O., Yamit-Hezi, A., Fitzer-Attas, C., Do, MS., Feldman, M. (1992). Genes and antigens controlling tumor metastasis. In: Rabes H, Peters PE, Munk K (eds): Metastasis: Basic Research and its Clinical Applications. Contrib Oncol. Basel, Karger, Vol. 44, pp. 1-12s.
55. Fitzer-Attas, C., Feldman, M., Eisenbach, L. (1993). Expression of functionally intact PDGF $\alpha$  receptors in highly metastatic 3LL Lewis lung carcinoma cells. *Int. J. Cancer* 53:315-322.
56. Porgador, A., Gansbacher, B., Bannerji, R., Tzehoval, E., Gilboa, E., Feldman, M., Eisenbach, L. (1993). Antimetastatic vaccination of tumor-

- bearing mice with IL-2 gene inserted tumor cells. *Int J Cancer* 53:471-477.
57. Katz, A., Porgador, A., Shulman, L., Revel, M., Feldman, M., Eisenbach L. (1993). Abrogation of B16 melanoma metastasis by prolonged low dose IL-6 therapy. *J. Immunotherapy* 13:98-109.
  58. Fenig, E., Nordenberg, J., Lurie, H., Porgador, A., Feldman, M., Eisenbach, L. (1993). Amplification of the expression of the major histocompatibility class-I antigens by inducers of differentiation and gamma interferon in murine and human solid tumor cell lines. *Int. J. Oncol.* 2:279-282.
  59. Porgador, A., Bannerji, R., Watanabe, Y., Feldman, M., Gilboa, E., Eisenbach, L. (1993). Anti-metastatic vaccination of tumor-bearing mice with two types of  $\gamma$ IFN gene inserted tumor cells. *J. Immunol.* 150:1458-1470.
  60. Katz, A., Shulman, LM., Revel, M., Feldman, M., Eisenbach, L. (1993). Combined therapy with IL-6 and inactivated tumor cells suppresses metastasis in mice bearing 3LL lung carcinomas. *Int. J. Cancer* 53:812-818.
  61. Plaksin, D., Baeurele, P., Eisenbach, L. (1993). KBF1-p50 homodimers are suppressors of MHC Class I expression in 3LL tumor cells. *J. Exp. Med.* 177:1651-1662.
  62. Rabizadeh, E., Shaklai, M., Nudelman, A., Eisenbach, L. (1993) Rapid alteration of c-myc and c-jun expression in leukemic cells induced to differentiate by a butyric acid prodrug. *FEBS* 328:225-229.
  63. Porgador, A., Tzehoval, E., Vadai, E., Feldman, M., Eisenbach, L. (1993). Immunotherapy via gene therapy: comparison of the effects of tumor cells transduced with IL2, IL6 or  $\gamma$ IFM genes. *J. Immunotherapy* 14:191-201.
  64. Fridkin, M., Rosen, O., Landsmann, P., Preciado-Patt, L., Tzehoval, E., Eisenbach, L., Hahn, T., Levantovsky, D., Pras, M., Spierer, L. (1993). Enzymatic processing of serum proteins - A route to peptides associated with host defense. In: "Peptide Chemistry" S. Sakakibara Ed. Escom Science Pub. pp. 637-642.
  65. Feldman, M., Eisenbach, L. (1993). MHC control of growth and metastatic properties of tumor cells. In: Solheim BG, Ferrone S, Möller E. (eds), "The HLA System in Clinical Transplantation. Basic Concepts and Importance.". Springer Berlin Heidelberg New York. pp. 185-198.
  66. Yamit-Hezi, A., Plaksin, D., Eisenbach, L. (1994). c-fos and c-jun overexpression in malignant cells reduces their tumorigenic and

metastatic potential and affects their MHC class I gene expression. *Oncogene* 9:1065-1079.

67. Porgador, A., Feldman, M., Eisenbach, L. (1994). Immunotherapy via gene therapy. *Nat. Immunity* 13:113-130.
68. Mandelboim, O., Berke, G., Fridkin, M., Feldman, M., Eisenstein, M., Eisenbach, L. (1994). CTL induction by a tumour-associated antigen octapeptide derived from a murine lung carcinoma. *Nature* 369:67-71.
69. Fitzer-Attas, C., Eldar, H., Eisenbach, L., Livneh, E. (1994). The expression of PDGF- $\alpha$  but not PDGF- $\beta$  receptors is suppressed in Swiss/3T3 fibroblasts over-expressing protein kinase C- $\alpha$ . *FEBS Lett.* 342:165-170.
70. Plaksin, D., Porgador, A., Vadai, E., Feldman, M., Schirmmacher, V., Eisenbach, L. (1994). Effective anti metastatic melanoma vaccination with tumor cells transfected with MHC genes and/or infected with Newcastle Disease virus (NDV). *Int. J. Cancer* 59:796-801.
71. Mandelboim, O., Vadai, E., Fridkin, M., Katz-Hillel, A., Feldman, M., Berke, G., Eisenbach, L. (1995). Regression of established murine carcinoma metastases following vaccination with tumor associated antigen peptides. *Nature Medicine* 1:1179-1183.
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